

REMARKS

This Amendment is filed in response to the Office Action mailed on December 31, 2002. All objections and rejections are respectfully traversed.

Claims 1-3, 9, 11, 12, 15-18, 20, 21, 23, 26, 27, 29-32, 44-46, and 48-110 are in the case.

Claim 47 was cancelled without prejudice.

Claims 16, 18, 48, 54 were amended to better claim the invention.

At paragraph 1 of the Office Action claims 16, 18, 48 were objected to. Amendment of the claims, and cancellation of claim 47 without prejudice, are believed to satisfy this objection.

At paragraphs 2 of the Office Action claims 47-48 were rejected under 35 U.S.C. 112, first paragraph. Amendment of claim 48 is believed to satisfy this rejection.

At paragraph 3 of the Office Action claims 66, 90-96, and 110 were rejected under 35 U.S.C. 112, first paragraph.

Claim 66 recites a “high bandwidth uplink”. Applicant respectfully notes that a high bandwidth uplink is disclosed in the Specification at page 16 line 21 through page 17 line 4, and Figure 1 item 60.

Claim 90 recites:

“distributing, in response to said type of service and in response to said hash result, said received packet to a selected processing engine located within said router, said selected processing engine providing said type of service.”

Applicant respectfully notes that using the hash result to select a processing engine, and using said type of service to select a queue within the processing engine is disclosed in the Specification at page 15 line 19 through page 16 line 10.

Claims 96 and 110 are claims to Electromagnetic Signals propagating over a computer network, the signals carrying instructions for practice of the novel method of the invention.

Applicant respectfully urges that the claimed subject matter is inherent in the skill set of a person of ordinary skill in the art of the invention, and therefore does not need to be disclosed in the present Specification.

Claims 96 and 110 claim transferring a computer program for practice of the method of the invention over a computer network such as the Internet. Any person skilled in the art of the invention knows that software is sold by downloading over the Internet. For example, even people of less skill than a person skilled in the art of the invention know that if they need a printer driver they simply download the driver software from an Internet web site of the printer manufacturer. Accordingly, Applicant respectfully urges that there is no need to disclose downloading software over the Internet, as knowledge of how to do so is inherent in the skill set of a person skilled in the art of the invention.

Therefore, Applicant respectfully urges that claims 96 and 110 are allowable under 35 U.S.C. § 112, first paragraph, because there is no need to disclose transferring software over a computer network such as the Internet in the Specification, as the use downloading software over the Internet is inherently in the skill set of a person of ordinary skill in the art of the invention.

At paragraphs 4-5 of the Office Action claim 54 was rejected under 35 U.S.C. 112, second paragraph. Amendment of claim 54 is believed to satisfy this rejection.

At paragraph 6 of the Office Action claim 58 was objected to on the grounds that “tag application update” is not disclosed in the specification.. Applicant respectfully points out that “tag application update” is disclosed in the Specification at page 16 lines 12-14.

At paragraphs 7-8 of the Office Action claims 1, 2, 9, 17, 18, 20, 21, 23, 26, 27, 29, 30-32, 45-47, 49-51, 53, 54, 57, 66, 70-77, 90, 94, 95, 97, 100, 101, 104, 105, 108, and 109 were rejected under 35 U.S.C. 102(e) as being anticipated by Bellenger U. S. Patent No. 5,802,054 issued September 1, 1998 (hereinafter Bellenger).

Applicant’s claimed novel invention, as set forth by representative claim 1, comprises in part:

1. A router for distributing packets in a network, wherein the packets originate at a source and are routed to a destination, comprising:
a plurality of route processing engines located within said router;
a mechanism that performs a hashing function on a destination address portion of a network layer in the packets transferred to the routing system, to produce an indicia of a flow and,
means for switching packets with a same said indicia of a flow to a single route processing engine of said plurality of route processing engines.

Bellenger discloses a network switch which uses a hash function on fields of a packet header to index into router tables within his network switch.

Applicant respectfully urges that Bellenger has no disclosure of using his hash function to direct his packet to a selected route processing engine of a plurality of route processing engines, as is claimed by Applicant.

Bellenger uses the results of his hash function for a job different from Applicant's claimed novel invention. Bellenger simply uses his hash function to access router tables, as set out in his Specification at his Col. 10 line 66 through Col. 11 line 20.

The Office Action points to these lines in Bellenger, his Col. 10 line 66 through Col. 11 line 20, as showing Applicant's claimed invention. However, in these lines there is no disclosure of using the hash result to select a *processing engine* out of a plurality of *processing engines*, as claimed by Applicant.

Further, Applicant respectfully urges that there is no disclosure anywhere else in Bellenger of Applicant's claimed using the hash result to select a *processing engine* out of a plurality of *processing engines*.

Accordingly, Applicant respectfully urges that Bellenger is legally precluded from anticipating Applicant's claimed novel invention under 35 U.S.C. 102 because of the absence from Bellenger of Applicant's claimed

a plurality of route processing engines located within said router;
a mechanism that performs a hashing function on a destination address portion of a network layer in the packets

. . .

means for switching packets with a same said indicia of a flow to a single route processing engine . . .

At paragraph 9 of the Office Action claims 11 and 12 were rejected under 35 U.S.C. 103 (a) as being unpatentable over Partridge U.S. Patent No. 6,160,811 issued December 12, 2000; in view of Weaver et al. U.S. Patent No. 6,173,384 issued January 9, 2001.

Partridge discloses a router having a matrix switch which both sends a packet to an output port and to a forwarding engine, where the forwarding engine sends the identity of an output port to the originating port.

Weaver discloses a method for searching for a record in a table in a memory of a computer system using a hash function. A hashing algorithm locates the record in the table.

Applicant respectfully urges that neither Partridge nor Weaver disclose Applicant's claimed novel

*a plurality of route processing engines located within said router;
a mechanism that performs a hashing function on a destination address portion
of a network layer in the packets*

. . .

*means for switching packets with a same said indicia of a flow to a single route
processing engine . . .*

Applicant claims using the results of a hash function to select one *processing engine* out of a *plurality of processing engines*. Neither Partridge nor Weaver have any disclosure of Applicant's selecting a *processing engine* from a *plurality of processing engines*.

Accordingly, Applicant respectfully urges that both Partridge and Weaver, taken either singly or in any combination, are legally precluded from rendering Applicant's claimed novel invention obvious under 35 U.S.C. 103 because of the absence from both of Applicant's claimed novel

*a plurality of route processing engines located within said router;
a mechanism that performs a hashing function on a destination address portion
of a network layer in the packets*

. . .

means for switching packets with a same said indicia of a flow to a single route processing engine . . .

At paragraph 10 of the Office Action claims 15 and 16 were rejected under 35 U.S.C. 103(a) as being unpatentable over Partridge in view of Weaver and further in view of Hartmann et al. U.S. Patent No. 5,905,873 issued May 18, 1999.

Applicant respectfully notes that both claim 15 and 16 are dependent from independent claims which are believed to be in condition for allowance.

Accordingly, claims 15 and 16 are believed to be in condition for allowance.

At paragraph 11 of the Office Action claims 59, 60, 67, 68, 91-93 were rejected under 35 U.S.C. 103(a) as being unpatentable over Bellenger.

Applicant respectfully notes that claims 59, 60, 67, 68, 91-93 are dependent from independent claims which are believed to be in condition for allowance.

Accordingly, claims 59, 60, 67, 68, 91-93 are believed to be in condition for allowance.

At paragraph claim 12 of the Office Action claims 3 and 69 were rejected under 35 U.S.C. 103(a) as being unpatentable over Bellenger in view of Vaughn et al. U.S. Patent No. 5,905,723.

Applicant respectfully notes that both claim 3 and 69 are dependent from independent claims which are believed to be in condition for allowance.

Accordingly, claims 3 and 69 are believed to be in condition for allowance.

At paragraph 13 of the Office Action claims 44, 52, 55-56, 61-65, 78-89, 98-99, 102, 103, 106, and 107 were allowed.

All independent claims are believed to be in condition for allowance.

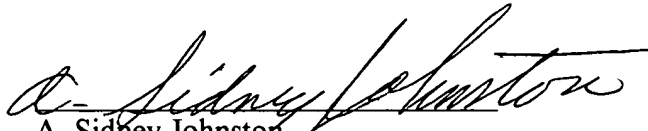
All dependent claims are believed to be dependent from allowable independent claims, and therefore in condition for allowance.

Favorable action is respectfully solicited.

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112025-0440
214; CPOL 4541

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Respectfully submitted,

A handwritten signature in cursive script, appearing to read "A. Sidney Johnston", written over a horizontal line.

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